



Bronze Birch Borer

Birch Trees

What is Bronze Birch Borer?

Bronze birch borer, *Agrilus anxius*, is a native wood boring beetle that attacks birch trees that are stressed by drought, soil compaction or other insects. Birch trees prefer cool, moist locations which are not often found in residential or urban areas, therefore many urban birch trees are at risk of bronze birch borer attack.

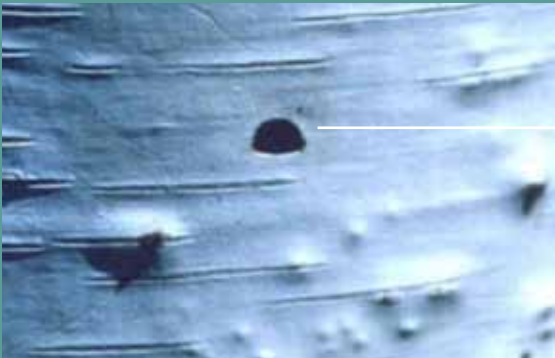


Photo, above: Bronze birch borer adults are slender with a coppery metallic color. **Below, top:** Bronze birch borer larvae are white, segmented, legless grubs about half an inch long at maturity. **Below, bottom:** Bronze birch borer is a flat headed borer, leaving D-shaped exit holes when it emerges from the tree as an adult.



The Beetle and the Birch Tree

Just like most wood boring beetles, it is the larval stage of bronze birch borer that causes damage. The larvae feed on the sapwood of the tree, disrupting the flow of water, nutrients, and sugar. Trees may be infested for several years before they begin showing visible symptoms. Preventative treatments are typically required to maintain these trees health, especially as they mature.



Bronze Birch Borer Symptoms

- Yellowing of leaves, just below dead tips of branches.
- Thinning leaves and branches at the top of the tree.
- Top-down dieback, occurring in the upper third of the tree first, showing yellowing then death.
- D-shaped exit holes. Bronze birch borer is a flat-headed borer, so when it emerges as an adult it chews a distinctly D-shaped hole.
- Swelling where larvae have tunneled underneath the bark.

Bronze Birch Borer Treatment Strategies



Understanding that bronze birch borer only attacks stressed trees helps us design a treatment program that both alleviates the stress and helps the tree with its defense system. Preventative and therapeutic treatments with insecticides need to target this pest where it feeds, the conductive tissues of the tree. Soil applied systemic insecticides, such as **Xytect™** and **Transtect™** offer protection from bronze birch borer by being distributed in this area.

Treatment Strategies

Watering

Adequate water is a key factor in maintaining healthy birch trees. A slow, deep watering event once every few weeks during dry conditions will help maintain soil moisture levels and minimize the stress that invites the bronze birch borer.

Mulching

Mulch is very beneficial for birch and all trees because it reduces competition with turf and moderates soil temperature and moisture levels. The addition of 3 inches of wood chips or shredded bark out to the drip line can have a very beneficial effect by holding in moisture and promoting healthy fibrous roots.

Fertilizing

Proper fertilization can be beneficial for any tree. However, too much nitrogen will increase your birch trees susceptibility to bronze birch borer by increasing succulent growth. Do not fertilize birch trees that are showing symptoms of bronze birch borer.

Using Insecticides

Preventative Treatments

Important trees that are not yet showing symptoms, or those that are beginning to die back, should be treated annually to prevent further symptoms or to keep insects out. Xytect™ is applied each year, preferably in the spring or fall, and lasts one full year in the tree. Mid-summer applications can be done but are not optimal.

Therapeutic Treatments

Trees that are showing symptoms in less than one third of their canopy are still good candidates for treatment. Once an infestation progresses beyond this point, the conductive tissues are too compromised to get insecticides into the tree. Dead branches will not grow back and should be pruned out.

In order to effectively control a heavy infestation, two treatments are required in the first year. The first needs to be fast acting to kill the larvae that are in the tree. Transtect™ is a quick absorption insecticide that effectively controls borers and will move into your tree in about a week. Following up with a Xytect™ application will provide one full year of protection. Annual Xytect™ applications will maintain this protection with no need for additional Transtect™.

Other Treatment Options

Protecting the trunk of a birch with foliar sprayed insecticides multiple times in a season was the standard treatment in the 1990's and before. With the advent of soil applied systemic insecticides this method is no longer necessary. If you prefer this method of treatment, please contact the Tree geeks for more information.



DIY Shopping List

Option 1:

**Application Type – Soil drench,
Soil injection**

DIY Product/Equipment Needed

- Transtect™ or Xytect™**
- Measuring or diameter tape
- Gloves
- Soil Drench:* Bucket or watering can
- Soil Injection:* HTI Soil Injection Kit

